

IN THE CLAIMS

Claims 1-32 (cancelled).

33. (currently amended) A method of treating ~~or preventing~~ a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease, wherein the method comprises administering a fucoidan derived from *Kjellmaniella crassifolia* and/or a degradation product thereof to a subject in need thereof for treating a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease.

34. (previously presented) The method according to claim 33, wherein the cytokine is an interleukin or an interferon.

35. (previously presented) The method according to claim 34, wherein the interferon is interferon- γ .

36. (previously presented) The method according to claim 34, wherein the interleukin is interleukin-12.

37. (previously presented) The method according to claim 33, wherein the allergic disease is a disease requiring suppression of IgE production.

38. (previously presented) The method according to claim 33, wherein the fucoidan and/or a degradation product thereof are orally administered.

39. (currently amended) A method for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production, wherein the method comprises administering a fucoidan derived from *Kjellmaniella crassifolia* and/or a degradation product thereof to a subject in need thereof for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production ~~is used as an effective ingredient.~~

40. (previously presented) The method according to claim 39, wherein the cytokine is an interleukin or an interferon.

41. (previously presented) The method according to claim 40, wherein the interferon is interferon- γ .

42. (previously presented) The method according to claim 40, wherein the interleukin is interleukin-12.

43. (previously presented) The method according to claim 39, wherein a food, drink or feed containing the fucoidan and/or a degradation product thereof as an effective ingredient is used.

44. (previously presented) The method according to claim 39, wherein a cosmetic containing the fucoidan and/or a degradation product thereof as an effective ingredient is used.

45-48. (cancelled)

49. (currently amended) A method of treating ~~or preventing~~ a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease, which comprises administering percutaneously an effective amount of the cosmetic composition of claim 45 53 to a subject in need thereof for treating ~~or preventing~~ a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease.

50. (currently amended) A method for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production, which comprises administering percutaneously an effective amount of the cosmetic composition of claim 45 53 to a subject in need thereof for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production.

51. (currently amended) A method of treating ~~or preventing~~ a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease, which comprises administering percutaneously an effective amount of the cosmetic composition of claim 48 60 to a subject in need thereof for treating ~~or preventing~~ a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease.

52. (currently amended) A method for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production, which comprises administering percutaneously an effective amount of the cosmetic composition of claim 48 60 to a subject in need thereof for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production.

53. (new) A percutaneous cosmetic composition which comprises an effective amount of a fucoidan derived from *Kjellmaniella crassifolia* and/or a degradation product thereof, said cosmetic composition being present in an effective amount for regulation of cytokine production, induction of nitrogen monoxide production, or anti-allergy.

54. (new) The cosmetic composition according to claim 53, wherein the daily adult dose of the effective ingredient is from 0.1 to 2000mg/kg.

55. (new) The cosmetic composition according to claim 53, wherein the effective ingredient is present in an amount from 0.0001 to 10% by weight.

56. (new) The composition according to claim 53, wherein the cytokine is an interleukin or an interferon.

57. (new) The cosmetic composition according to claim 56, wherein the interferon is interferon- γ .

58. (new) The cosmetic composition according to claim 56, wherein the interleukin is interleukin-12.

59. (new) The cosmetic composition according to claim 53, wherein the cosmetic composition for anti-allergy is a cosmetic composition for suppression of IgE production.

60. (new) A percutaneous cosmetic composition comprising 0.001 to 20% by weight of a fucoidan derived from *Kjellmaniella crassifolia* and/or a degradation product thereof.